ABSTRACT OF THE DISCLOSURE

A chimeric, carboxy-terminal truncated hepatitis B virus nucleocapsid (core) protein (HBc) that is engineered for both enhanced stability of self-assembled particles and the substantial absence of nucleic acid binding by those particles is disclosed. The chimeric protein molecule can include one or more immunogenic epitopes peptide-bonded to one or more of the N-terminus, the immunogenic loop or the C-terminus of HBc. The enhanced stability of self-assembled particles is obtained by the presence of at least one heterologous cysteine residue near one or both of the amino-terminus and carboxy-terminus of the chimer molecule and the absence of the cysteine residues present in the native sequence at HBc positions 48 and 107.